

AR20



Standard Oil Company (Indiana)

ANNUAL REPORT 1970

COVER PICTURE:

Using the North Sea jack-up rig Orion, we drilled an offshore discovery well 183 miles southwest of Stavanger, Norway. The well tested at a rate exceeding 3,600 barrels of oil a day.

The Year in Brief**1970****1969*****Financial**

Total revenues.....	\$4,623,229,000	4,334,340,000
Net income	\$ 314,019,000	321,033,000
Net income per share.....	\$ 4.55	4.54
Dividends paid.....	\$ 159,015,000	163,254,000
Dividends paid per share.....	\$ 2.30	2.30
Capital and exploration expenditures	\$ 713,279,000	857,189,000
Total assets	\$5,397,471,000	5,169,640,000
Book value per share	\$ 48.89	46.64
Working capital	\$ 484,298,000	544,277,000

Operating

Crude oil and natural gas liquids, barrels per day —

Net production	744,439	684,384
Refinery input	977,426	970,737
Natural gas sold, thousand cubic feet per day....	3,453,557	3,267,243
Refined products sold, barrels per day.....	1,073,504	1,034,677

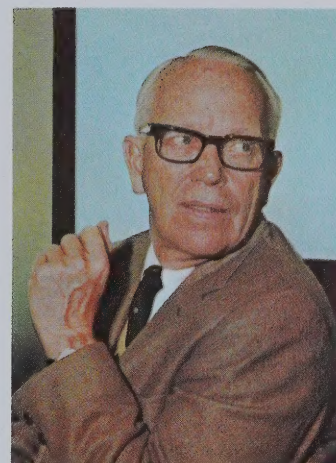
* Restated to reflect the consolidation of Amoco Argentina Oil Company.

If you would like to receive the financial and statistical supplement to the 1970 Annual Report, please send your request to the Secretary, Standard Oil Company (Indiana), P.O. Box 5910-A, Chicago, Illinois 60680.

Despite Adverse Pressures, 1970 Was 2nd Best Earnings Year In Our History



John E. Swearingen



Robert C. Gunness

To Our Shareholders: 1970 was a demanding year, one which tested the basic strengths of the economy and our industry, and one in which our Company performed well.

Despite the adverse pressures of sharply higher taxation, economic slowdown, inflation, and heavy new expenditures for environmental control, 1970 still ranked as our second best earnings year.

Consolidated net income totaled \$314 million, approximately 2 per cent below the record \$321 million earned in 1969. Earnings per share in 1970 were \$4.55 versus \$4.54 in 1969, reflecting a small reduction in the number of shares outstanding.

Capital and exploration expenditures were cut back from the unusually high levels of 1969, which included nearly \$100 million incurred in the Alaskan North Slope lease sale. Plans to evaluate this acreage have been temporarily suspended because of governmental delays in approval for the proposed trans-Alaskan pipeline.

New operating records were set in 1970. Net production of crude oil and natural gas liquids increased 9 per cent, while sales of natural gas rose 6 per cent. Sales of refined products averaged over 1 million barrels a day, a gain of 4 per cent.

Within North America, we achieved significant gains in oil production from known fields through an intensified development and secondary recovery program. We also added to our oil and gas reserves in the Gulf of Mexico, and discovered a new oil field in Colorado.

A major exploratory venture is proceeding off the east coast of Canada, where we and an equal partner hold about 40 million acres under exploratory permits. We plan a series of deep tests in 1971 and 1972, using specially-designed, semi-submersible drilling vessels.

Further progress was made overseas during 1970. Drilling began from the initial platform to develop the extensive oil and gas

reserves discovered on our full-interest holdings offshore Trinidad, with oil production scheduled to start in early 1972.

In the North Sea, our net share of natural gas deliveries from the Leman Bank field increased sharply, averaging 114 million cubic feet per day for the year. We also participated in a potentially significant oil discovery offshore Norway.

In the Gulf of Suez, net oil production from the El Morgan field increased by more than 20,000 barrels a day in 1970, to an average of 107,000 barrels a day.

We are participating in an international group which has obtained a concession to explore for copper and other minerals in an area bordering a government owned copper complex in the Katanga province of the Democratic Republic of the Congo.

Chemical sales were adversely affected by deteriorating prices and by the economic slowdown in 1970, particularly in the domestic

automotive and housing markets, where we are large suppliers of plastics and synthetic fabrics. As a result, the dollar volume fell short of objectives.

Domestic petroleum product demand was heavy, and we set sales records for fuels of all types, as well as for asphalt.

To help reduce automotive emissions, our Company was the first to introduce generally a new, lower-octane, lead-free gasoline. We continued to supply our high-octane, unleaded Amoco Super Premium in the East and South.

Marketing the new third grade required commitment of more than \$100 million in capital spending for 1970 and 1971. Other large expenditures are being made for environmental improvement, to reduce sulfur dioxide emissions, to improve the treatment of effluent water in our manufacturing and producing operations, and to reduce the sulfur content of fuels.

Looking toward the Company's housing needs for the future, we broke ground for construction of an 80-story international headquarters office building in downtown Chicago.

In 1970, the United States had a sobering foretaste of a period of energy scarcity, which may lie ahead. This included shortages of natural gas and low-sulfur coal, which forced electric utilities and other industrial fuel users to turn to low-sulfur residual oil to meet new pollution control standards. Supplies of oil were stretched thin and shortages of

electric power were widespread.

Once again we had a demonstration of the unreliability of imported oil and the necessity for reserve domestic capacity. Actions by governments in the Eastern Hemisphere, restricting both production and transportation of crude, disrupted world oil markets.

Tanker rates soared, as every available vessel was pressed into long-haul service from the Persian Gulf to meet Europe's needs. Suddenly, Middle East oil ceased to be low in cost. Fortunately, enough reserve producing capacity was available in the U.S. to replace supplies that were formerly imported.

Since then, the major Middle Eastern producing countries have successfully negotiated new agreements calling for sharp increases in crude prices over the next five years.

The year saw some positive developments in Washington. The proposal to scrap the oil imports quota system and increase our dependency on foreign oil was shelved, at least for the time being.

In addition, the Federal Power Commission has at last recognized the self-defeating effects on natural gas production of unrealistically low price ceilings, which have discouraged the search for new supplies. Some overdue price improvement appears at hand.

The fact remains that the nation's proved reserves of oil and natural gas are declining as energy demand rises, while the cost of imported supplies escalates and deliverability

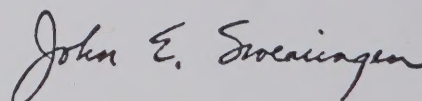
becomes more and more uncertain.

This trend must be reversed if the future needs of the United States for reliable energy supplies are to be met. The situation demands a clear national policy that our security requires increased domestic production of oil and gas, and adequate economic incentives to find and develop the needed new reserves.

It is clear that 1971 will present severe challenges to our Company. Increases in wages, costs, and taxes continue unchecked, and further heavy capital expenditures will be required.

However, demand for refined products is projected to rise strongly again this year, both here and abroad. With the anticipated acceleration in the pace of the U.S. economy, sales of chemical products should also respond vigorously. Assuming a price structure adequate to offset higher costs, we look forward to a resumption of our earnings growth in 1971.

To our 179,000 shareholders, we express our appreciation for their continued support.



Chairman

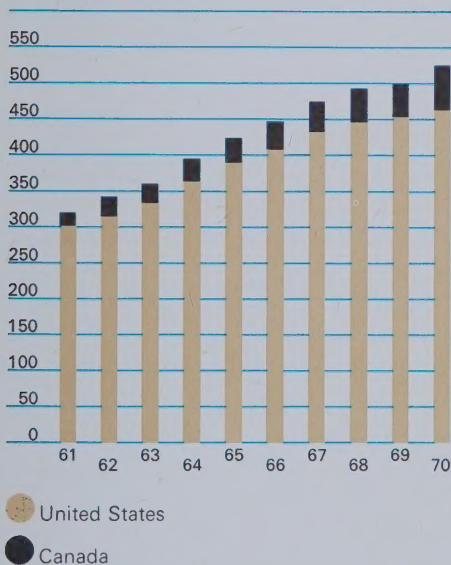


President

March 1, 1971

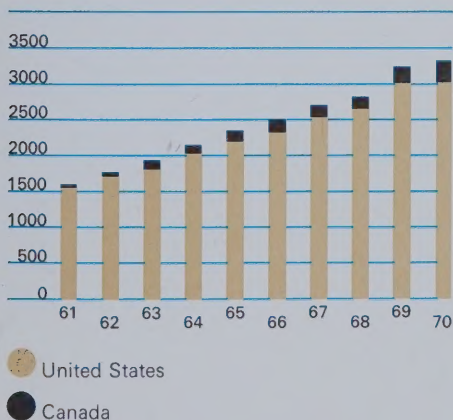
North American Production at Record Levels; Oil and Gas Reserves Off Slightly

in thousands of barrels daily



North American Crude Oil Production

in millions of cubic feet daily



North American Natural Gas Production

Crude Oil. Our net production of crude oil and natural gas liquids in North America rose to a record 524,221 barrels daily, a 5 per cent increase over 1969. Production increased 3 per cent in the U.S. to a record level of 466,567 barrels daily. Our production in Canada also was at an all-time high, increasing 21 per cent to 57,654 barrels daily.

As the demand for domestic and Canadian crude oil rapidly increased, and the availability of foreign crude was curtailed by a transportation shortage, permissible production was raised substantially in Texas, Louisiana, New Mexico, and Alberta.

Natural Gas. Rising demand again led to a significant increase in our North American natural gas production.

Our daily average production during 1970 was 3.3 billion cubic feet, an increase of 3 per cent. Much of this increase resulted from pipeline companies in the United States purchasing gas from older fields in volumes exceeding contract requirements because of the growing gas shortage, and from the first full year of sales from the Marten Hills field in Alberta, which averaged 66 million cubic feet daily.

We entered into an agreement under which a gas company will provide approximately \$10 million for an exploratory drilling program on some 300,000 acres which we have under lease or option in the northeast Denver Basin in Colorado. These amounts will be

a charge only upon such production as may result from this program.

We began deliveries of gas from four offshore Louisiana fields under contracts made in the last two years. Deliveries are to begin in 1971 from five other fields off Louisiana under six contracts, some dating back to 1968. These 10 contracts cover proved reserves of 280 billion cubic feet.

Initial deliveries were made under other previously negotiated contracts for gas in Texas and Louisiana. At the end of 1970 we had gas sales contracts that covered 96 per cent of our proved gas reserves in North America.

Oil and Gas Reserves. At year end our North American reserves of crude oil and natural gas liquids totaled 3,238 million barrels, and reserves of natural gas totaled 19,029 billion cubic feet. These estimated reserves were lower than those at the end of the previous year by 63 million barrels in the case of liquids and by 1,350 billion cubic feet in the case of natural gas.

The decline in reserves was due primarily to three factors. First, production volumes during 1970 were at record levels, 191 million barrels of liquids and 1,221 billion cubic feet of gas. Second, the Company reduced its exploratory program because of the unfavorable economic environment for the industry resulting from the new tax burdens, proposed modifications to the oil import program, and continuing regulatory pressure on

Development Drilling, Up 32%, Raises Our Production Capacity; Gas Processing Expanded

natural gas prices. The reduction in exploratory effort, particularly in wildcat wells, resulted in a lower level of new discoveries than would otherwise have been the case. Finally, reserve changes resulting from new secondary recovery projects, field development activity, and review of previous reserve estimates were less favorable than in previous years.

The problem of declining reserves, which has been a trend apparent in the industry for some time, points up the importance of keeping the incentives to invest capital in oil and gas exploration and development at a level which will insure a strong domestic industry.

Development. We drilled or participated in 1,385 development wells during 1970, an increase of 32 per cent over 1969. Our net interest was equal to 791 wells. Important areas of development include:

Offshore Louisiana: Our development in the Gulf of Mexico reached a record level in 1970. We drilled 268 net wells which will have net production of about 3,000 barrels of oil, 140 million cubic feet of gas, and 1,300 barrels of condensate daily. Fields in South Marsh Island and Eugene Island account for about two-thirds of this increased production.

Onshore Louisiana: Production from 13 completions in 10 wells which were drilled in 1970 in the East and West Hackberry fields reached 1,800 barrels daily.

West Texas: Completion of a total of 335 wells in the Slaughter,

Levelland, Wasson, South Cowden, and North Cowden fields yielded initial potentials totaling 19,000 barrels of oil a day. Despite conversion of large numbers of wells to injection service to complete waterflood patterns, these wells allowed a production increase of more than 10,000 barrels of oil a day. Full waterflood response will yield further production increases in 1971.

Canada: At Swan Hills, water injection and expanded production facilities helped boost daily net production by 3,450 barrels.

Wyoming: Total initial potential from 11 infill wells in the Little Buffalo Basin was 2,680 net barrels of oil a day. Net daily production from this unit averaged a record 6,040 barrels in 1970.

Gas Processing. To process our natural gas production, we operate for ourselves and partners 37 plants with gross operating capacity of 3 billion cubic feet of gas and 111,000 barrels of liquids daily. We also have an interest in 34 plants operated by others.

We expanded four plants that we operate, and construction was completed on six other plants in which we have an interest. We started work to expand or modify three plants. Construction began on four new plants, two of which we will operate.

At Kaybob South in Alberta, one gas cycling plant was completed and another was begun. When the Alberta Conservation Board allows full operation, probably in late 1971, our net daily production from these

plants operated by others will be 7,600 barrels of condensate, 4,080 barrels of liquefied petroleum gas, 12.1 million cubic feet of gas for sale, and 700 long tons of sulfur. At Beaver River in northern British Columbia, where we have a long-term gas sales contract to deliver more than 2 trillion net cubic feet, a dehydration plant and gathering system is under construction with capacity to process 240 million cubic feet of gas a day. In Oklahoma, we started work to double the gas processing capacity of our Mooreland plant to 250 million cubic feet daily, gross. We have 25 per cent interest in this plant.

In the Peoria field, a new field in the Denver-Julesburg Basin about 40 miles east of Denver, we started building a 76 per cent owned plant capable of processing 8 million cubic feet of gas daily.

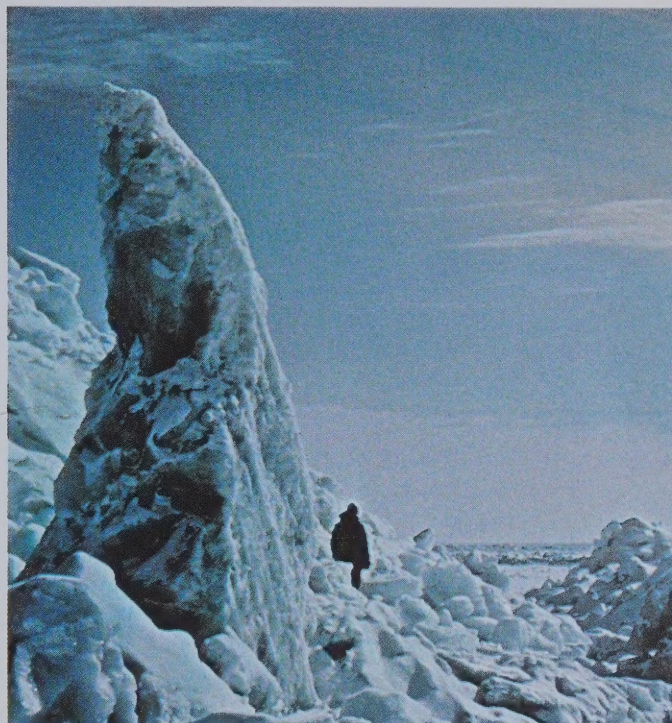
We have 50 per cent interest in a project supplying liquefied petroleum gas from Alberta fields to markets in eastern Canada. First deliveries were made in 1970. The overall project includes a 200-mile pipeline in Alberta; tankage and pumping facilities at Edmonton, Alberta; tankage and pumps at Superior, Wisconsin, and a fractionation plant and underground storage facility at Sarnia, Ontario. The Sarnia plant has a capacity of 17,500 barrels of liquefied petroleum gas and 12,500 barrels of condensate and crude daily.

Our net sulfur recovered from North American lease, plant, refinery, and mining operations reached 1,495 long tons daily in 1970.

Some of our Peoria field wells set records for eastern Colorado.



Beaufort Sea ice studies help to plan Arctic operations.



Geologist samples Wyoming portion of the 7.5 million acres of Union Pacific Railroad land on which we hold mineral rights.

Exploratory Drilling Reduced; Discoveries Made In Colorado, Alberta, Michigan, and Mississippi

Improved Technology. Additional field automation equipment and secondary recovery programs increased the efficiency of our operations.

During 1970, we installed computerized telemetering systems in the Hastings field, Texas, and the Winkelman Dome field, Wyoming. Completion of these projects brought 1,755 wells and 99,500 barrels of daily production under computerized control. We also began programs in other fields in both the U.S. and Canada which will lead to computerized control of more than 7,100 wells and more than half of our production by 1975.

In all, we participated in starting 33 new secondary recovery projects during 1970. We also joined other companies in forming 27 units as a step toward secondary recovery. At year end we were operating 213 projects. As part of an on-going program, we continued to test improved recovery techniques in the field and had encouraging results.

Exploration. We drilled, or took part in drilling, 299 wildcats during 1970, 180 fewer than in 1969, because of a reduction in funds allocated to North American exploration. To minimize the economic risk in the exploration and development of our acreage holdings, our farmout and contribution program supported more than 740 wells drilled by others, with land and/or money support provided by our Company. In such cost-sharing arrangements

we retain part of the production from successful wells.

Our net interest in the 1970 working-interest wildcat wells was equal to 175 wells. Among our discoveries, the most notable were the following:

Rocky Mountains: On the 7.5 million acres in Wyoming, Colorado, and Utah which were opened to exploration by our agreement with the Union Pacific Railroad in 1969, we drilled, or caused to be drilled, 191 wildcat wells. The Peoria field was discovered with a joint-interest well that flowed 2.5 million cubic feet of gas and 28 barrels of oil daily. Initial producing rates of our subsequent full-interest wells range as high as 1,848 barrels daily, a record for wells in eastern Colorado. However, production from the field has been sharply curtailed by the State of Colorado for the purpose of minimizing the flaring of gas until our gas-processing plant has been completed and pipeline connections can be made.

South Boundary Lake, Alberta: A joint-interest wildcat near the British Columbia-Alberta boundary flowed 150 barrels of oil daily. We control 108,000 net acres in the multiple prospective horizons area near what is now British Columbia's largest oil field. Development of these holdings is continuing.

Michigan: We participated in drilling four discovery wells in 1970. One was a fully owned wildcat which flowed 266 barrels of oil and 1.7 million cubic feet

of gas daily. At year end, our holdings in Michigan totaled 654,000 net acres.

Mississippi: A 24 per cent interest discovery well in Clarke County encountered 151 feet of net oil and gas pay from two zones. Although we have only 180 net acres in the immediate vicinity of this well, we have 55,000 net acres of additional holdings on the trend which we believe are favorably located for future exploration.

Undeveloped Holdings. At year end, our net undeveloped leaseholds totaled 12.6 million acres in the United States and 5.3 million acres in Canada. We also have 6.2 million acres in the U.S. and 40.8 million acres in Canada under option or permit.

At the December 15 Federal offshore lease sale we obtained 29,645 net acres at a cost of \$14.3 million, bringing our offshore Louisiana holdings to about 160,600 net acres.

To explore the approximately 40 million acres on the Grand Banks and the Flemish Cap off Newfoundland, which we and an equal partner have under exploratory permit, a large semi-submersible drilling vessel, the Sedco I, was built at Halifax, Nova Scotia. We plan to use this structure to drill four or five exploratory wells on the Grand Banks during 1971. The vessel is under a two-year contract to us and our partner. Some of these wells will be in waters as far as 250 miles from shore.

Pipelines Deliver Record Volumes



Our wholly owned common carrier pipelines delivered a record average of 1,514,469 barrels of crude oil and products daily, up 4 per cent from 1969. At year end our wholly owned crude oil pipelines in the United States totaled 11,200 miles, and our product pipelines totaled 2,395 miles.

Two common carrier product lines in which we own substantial interests — Wyco Pipe Line, 40 per cent, and West Shore Pipe Line, 16.5 per cent — also moved record volumes. With the shutdown of the Neodesha refinery, we sold 118 miles of 8- and 10-inch product and crude pipeline, a pump station, and five tanks.

The Whiting refinery began receiving Canadian crude oil via pipeline in January, but restrictions on imports kept the volume relatively low.

Our fleet of domestic coastal and inland tankers moved 48.6 million barrels of products. This was an increase of 8 per cent compared with 1969.

This rig drilled our fully owned discovery in the Michigan Basin.

Domestic Refinery Runs Rise; New Units Completed at Texas City and Sugar Creek

Processing of crude oil and natural gas liquids at our domestic refineries rose slightly to a record 895,218 barrels a day.

At our Texas City, Texas, refinery we expanded crude-running and coking facilities and began building a fourth Ultraformer, a unit which uses our process to reform low-octane naphtha into high-octane stocks for gasoline — particularly for unleaded gasoline.

At Sugar Creek, Missouri, we put on stream in December a dual unit that removes sulfur from

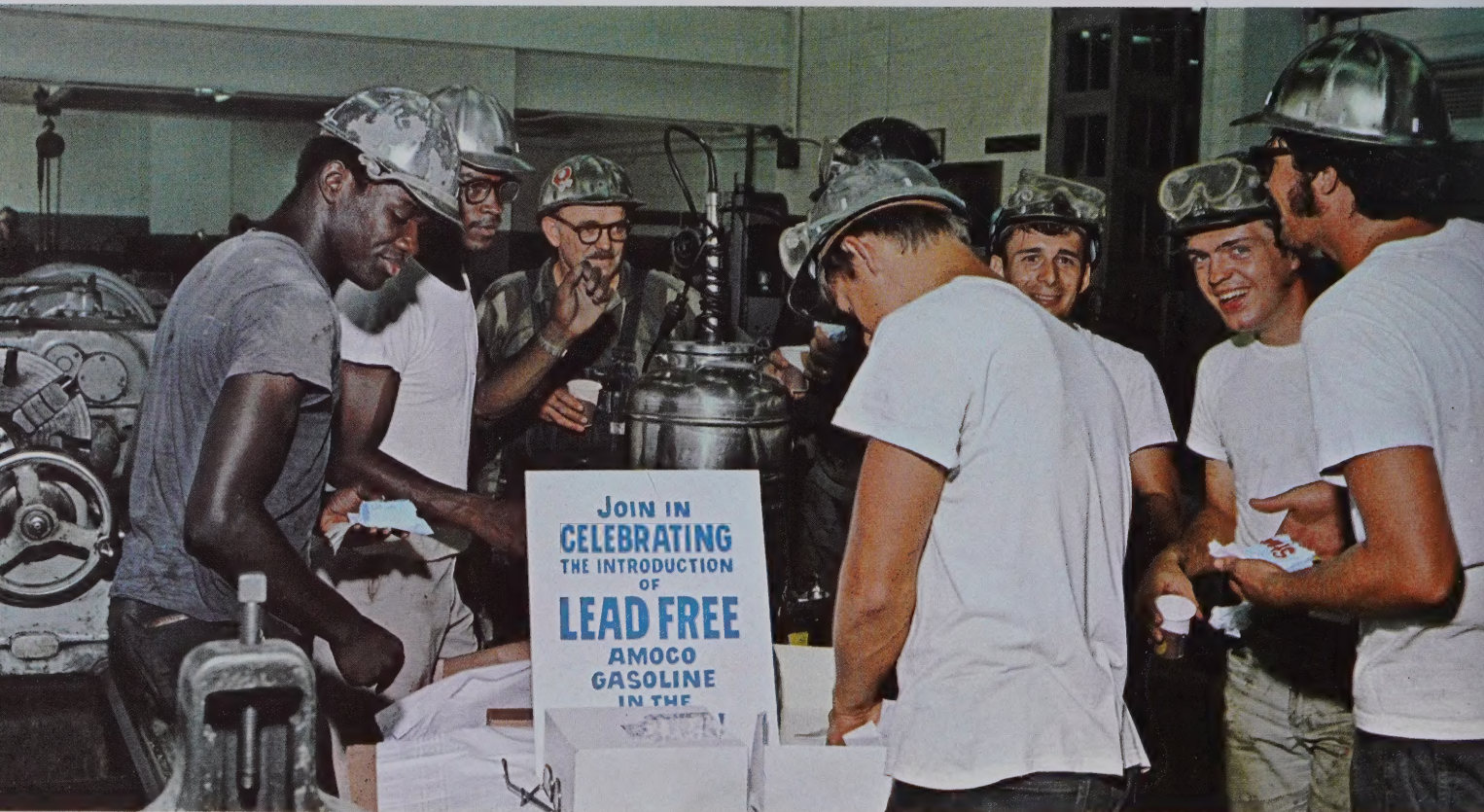
fuel oil products and strips sulfur from refinery gases.

Our Whiting, Indiana, refinery announced plans to spend more than \$13 million over 2½ years to improve air quality through further reductions of sulfur dioxide emissions by building two new units. One will remove sulfur from refinery fuel gas; the other will remove sulfur from liquid fuel used at the refinery. Sites for the new units are being prepared.

Our 73-year-old refinery at Neodesha, Kansas, was shut down

April 1. Some facilities were sold and some salvaged for other refineries. Adjustments by our other refineries and our wholly owned product pipelines have filled the supply gap. More than 400 acres of land and facilities were donated to the city for use as an industrial park which has already attracted new industry. Substantially all former employees of the refinery who wanted employment were placed in jobs. Those who left the Company or retired early received liberal severance allowances.

Sugar Creek refinery employees celebrate introduction of Lead-Free Amoco gasoline.



North American Chemical Sales Down in Year Of Price Weakness; Fertilizer Revenues Increase

North American sales of chemicals fell 10 per cent to \$276 million, because of price weakness, even though volumes sold were up. Fertilizer sales increased 24 per cent to \$63 million.

Despite a slow textile business, a rubber company strike, and automotive industry strikes, which hurt prices, our sales volume of two important products — dimethyl terephthalate (DMT) and purified terephthalic acid (PTA) — held approximately even with 1969.

Markets for styrene monomer, polystyrene, polypropylene, and sulfur were weak in 1970.

New sales volume records were set for isophthalic acid, trimellitic anhydride, polybutene, polystyrene, polypropylene, and oil production chemicals. Volume gains of about 20 per cent were registered by an old line — additives for lubricating oils, gasolines and

fuel oils — and a newer line — fabricated plastic products.

We began operating a high-density polyethylene plant at Chocolate Bayou, Texas, near Houston, using our patented process. A polypropylene plant at the same location is nearing completion. At El Dorado, Arkansas, we increased capacity of our polypropylene plant by 90 per cent and are increasing production to meet sales.

At Joliet, Illinois, we revamped an oxidation unit to permit production of isophthalic acid, and raised the capacity of our polystyrene unit.

New facilities were built at Decatur, Alabama, to ship molten DMT and produce special particle sizes of terephthalic acid, and we neared completion of a new unit to produce 400 million pounds a year of PTA.

We expanded plants for making food packaging materials at Chippewa Falls, Wisconsin, and

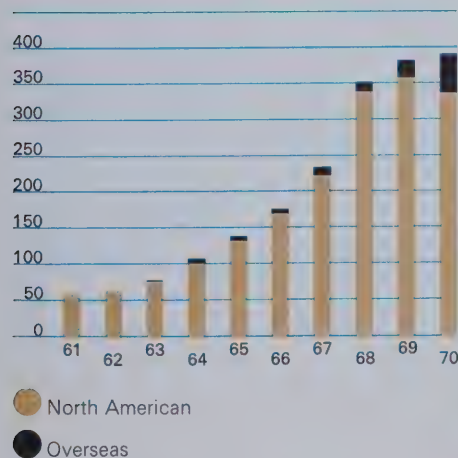
La Mirada, California, and installed a new customized production line at the New Castle, Delaware, polypropylene film plant. At Fullerton, California, we completed a plant to produce plastic housewares, picnic and camping food utensils, and trash barrels.

New chemical products included several additives for lubricants and fuels, two fluids that aid in oil-well drilling and maintenance, a leno weave (netting) fabric to replace paper in the packaging of produce for grocery retailing, an improved carpet backing, a modified wire enamel, a new polymer film and a foamed polypropylene film, an expanded line of food containers, an improved line of high-impact polystyrenes for furniture, and an improved polypropylene fiber.

Fertilizer prices, soft for several years, turned upward in 1970, and continued stronger into 1971.

Sales of liquid-mix fertilizers rose 26 per cent.

in millions of dollars



Sales of Chemicals and Fertilizers

High-density polyethylene plant at Chocolate Bayou, Texas, began operation in 1970.



Lead-Free Regular-Grade Gasoline Introduced; Sales of Refined Products Gain 2%

The major event in our domestic marketing in 1970 was the addition of a lead-free regular-grade gasoline to our line of products. We were the first company to market a lead-free regular grade on a broad basis. The new product is called Amoco Lead-Free Gasoline.

Lead-free gasoline is one of two steps required to virtually eliminate air pollution by automobiles. The other step is to equip cars with catalytic converters to remove unburned hydrocarbons, carbon monoxide, and nitrogen oxides from auto exhaust. Such devices, however, do not operate efficiently very long when leaded gasoline is used, because the lead deactivates the catalysts in the converters.

While continuing research preparatory to equipping cars with these devices, automobile manufacturers built most of their 1971 models to operate on a regular grade unleaded fuel. In addition, more than half of the

earlier cars that used regular gasoline can use this unleaded fuel satisfactorily. The immediate results of using this gasoline are to eliminate emissions of lead particles and to reduce the volume of unburned hydrocarbons from exhausts by at least 15 per cent. An additional advantage to the motorist is longer life for spark plugs and exhaust systems.

The new gasoline costs more to make and market than the leaded regular grade because higher grade stocks must be used. The new fuel sells at a price above that of leaded regular and below leaded premium.

The new regular grade unleaded gasoline, being made available generally, is in addition to Amoco Super Premium, a lead-free gasoline that we have marketed in 25 eastern and southern states and the District of Columbia, at a slightly higher price than competing leaded premium gasolines. American Oil Company entered 1970 with 55 years of experience in manufacturing and marketing a lead-free gasoline, and it is the only company with such experience.

Even so, the obstacles to widespread distribution of a lower-octane gasoline without lead were formidable. To serve all motorists — those whose cars required premium and regular grades, as well as those who would be buying 1971 models engineered for lower octane fuel — the Company introduced its new product as a third grade in addition to the two grades already marketed.

The new gasoline was introduced by strong advertising and publicity programs. By year end, Lead-Free Amoco was available at more than 7,600 of our outlets.

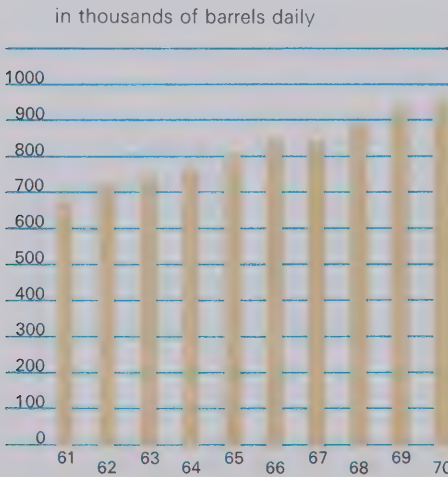
Providing a third-grade, lead-free gasoline required the commitment of more than \$100 million in capital spending for 1970 and 1971.

The threat of a U.S. energy crisis was precipitated by anti-pollution legislation, production restrictions and transportation problems of foreign oil, and by long-predicted natural gas shortages brought on by Federal controls on natural gas prices at the wellhead. Although 1970 supplies proved sufficient, the threat of a shortage was compounded by business from new customers, resulting in unprecedented demand for all low-sulfur petroleum fuels. Expanded state paving programs and good weather also resulted in unanticipated heavy demand for asphalt.

As a result of these factors we set sales records for fuels of all types and sold a record 17 million barrels of asphalt. The demand-supply situation, as well as the added costs of manufacturing low-sulfur products, resulted in a strong price pattern for LP Gas, all fuel oils, and asphalt.

Gasoline prices failed to hold at higher levels, however, due to severe competition. Our gasoline sales rose 1 per cent, with realizations only slightly better than in 1969.

New products, in addition to Lead-Free Amoco, included special test gasolines for automotive



Refined Product Sales—North America

companies; engine lubricating oils; a line of fire-resistant hydraulic fluids; cutting, soluble, and drawing oils for the metal-working industry; torque converter fluid for buses; wax for cup-coating; a food machinery cleaner; a line of Amoco tires; an oil for LP Gas-fueled engines, and an acrylic floor finish.

Fire destroyed a warehouse storing equipment and products in Hammond, Indiana. Immediate temporary measures prevented all but nominal disruption of service to dealers, agents, jobbers, and other customers. Plans are under way to replace the structure in 1971. We completed a warehouse at Dearborn, Michigan, and built a new light oils terminal at Brooklyn, New York.

New Servicenters, diagnostic auto repair centers operated by service station dealers, are receiving good customer acceptance.



Excavation for new tank precedes introduction of Lead-Free Amoco.

American Oil's President Yarrington shows new Amoco pump.

Overseas Oil and Gas Production Rises; Discoveries Made Off Ghana, Norway

Exploration and Production

Africa

Egypt. Gross average production of crude oil from the El Morgan field in the Gulf of Suez rose from 192,000 barrels a day in 1969 to 269,000 in 1970. Of this, we netted 107,285 barrels a day, up 25 per cent. The field is held equally with the government-owned Egyptian General Petroleum Corporation. Ten unsuccessful tests were drilled in the Western Desert and Nile Basin.

Ghana. An offshore discovery in which we have one-third interest was completed about eight miles south of Ghana, testing at the rate of 3,600 barrels of high-gravity oil a day from two zones. Further evaluation is planned. We hold one-third interest in about 1 million acres, and one-fourth interest in about 456,000 acres, where two unsuccessful tests were drilled. At least two additional exploratory tests are planned for 1971.

Libya. Production of crude oil from Concession 95 commenced in March and averaged 6,742 barrels a day net for the year. By year end, production reached 12,723 net barrels a day.

Geophysical surveys were conducted during the year on two concessions.

Mozambique. We drilled two unsuccessful wells and relinquished some holdings. We now have full working interest in 5.9 million acres on- and offshore which we plan to explore further. A former

partner retained a small override on any oil or gas we produce.

Asia

Iran. From the Darius and Cyrus fields of the Persian Gulf, jointly owned with the National Iranian Oil Company (NIOC), our net production averaged 46,284 barrels a day, versus a 51,892-barrel average in 1969.

The Darius field, which is capable of producing 100,000 barrels a day, was restricted during pricing negotiations, and averaged only 79,900 gross barrels a day in 1970 compared with 92,900 in 1969. A one-year agreement on prices was reached in November, 1970.

The Cyrus field was off production two months to permit installation of a one-million-barrel storage barge with desalting equipment. As a result, 1970 production averaged only 13,600 gross barrels a day. Discussions continued with NIOC on a plan to develop and produce the Fereidoon field, 60 miles southwest of Kharg Island.

The Ardeshir field, about 40 miles northwest of Kharg Island, has been designated as commercially exploitable.

Europe

The Netherlands. We and our partners signed an exchange agreement under which we will deliver gas from the Bergen concession, in which we have 36 per cent interest, to another company which will deliver gas to our West German contract customer, thus eliminating the need to build

a 120-mile pipeline. In 1971 we plan to start building facilities to produce and process the gas, scheduled for delivery in 1972. Production is expected to begin at an average rate of about 90 million cubic feet a day, rising rapidly to a maximum of 320 million cubic feet a day if reserves support it. Development and exploratory drilling have continued onshore. We will also survey the three offshore blocks, totaling 298,502 acres, that were acquired in 1970, in which we have 60 per cent interest.

Norway. The group of companies for which we act as operator made an offshore oil discovery in the Torfelt area, 183 miles southwest of Stavanger. The well tested at a rate exceeding 3,600 barrels a day of 40 degree API gravity oil. We have 28.3 per cent interest in 140,849 acres in the discovery block and in 1,071,691 acres in the surrounding area, where there have been several discoveries. We also have 25 per cent interest in 185,147 additional acres in the Norwegian portion of the North Sea. Further drilling and testing are planned in 1971.

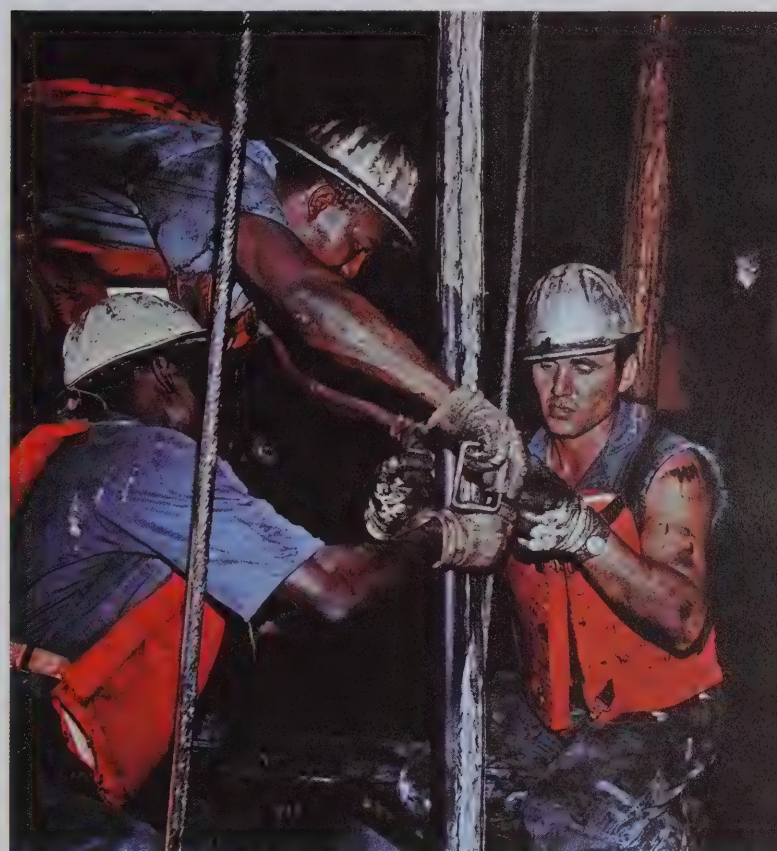
United Kingdom. Net production of North Sea gas from the Leman Bank field averaged 114 million cubic feet a day in 1970, with the field still in the buildup stage.

Development drilling and construction of additional production facilities were started in the Indefatigable field, which is scheduled to begin producing in October, 1971. During the first year of operation, net production is

Diver comes up from ocean floor at 12-well platform off Trinidad.



Crew pulls pipe on floor of Trinidad exploratory rig.



Crude from the Jobo field, Venezuela, is loaded aboard tanker.

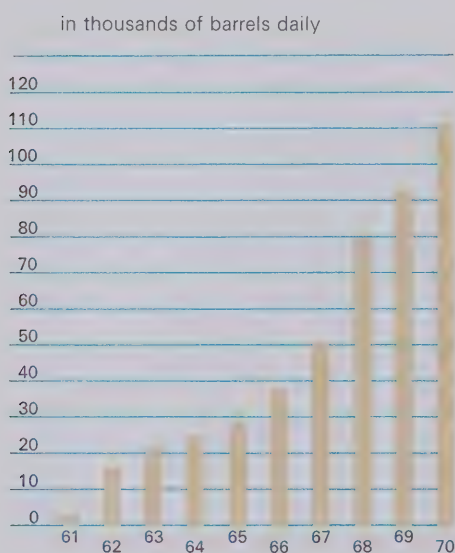


Sulfur recovered from Darius crude is stored at Kharg Island.

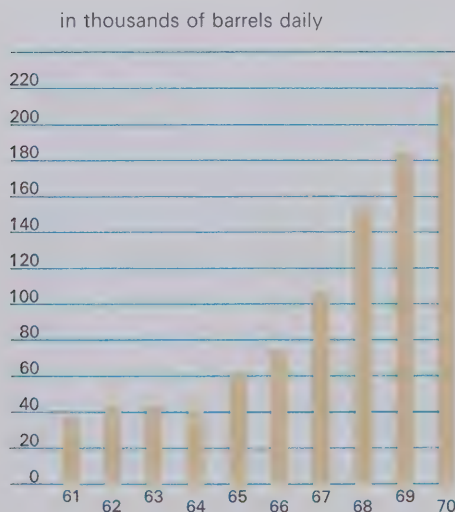
New Gas Areas Found Off Trinidad; Foreign Sales of Refined Products, Chemicals Up

expected to average 54 million cubic feet a day.

Additional drilling is planned east of Scotland, where we tested oil in 1969. We have 30.77 per cent



Refined Product Sales—Outside North America



Crude Oil Production Outside North America

interest in the 154,539-acre block where the oil was discovered.

We and three partners were awarded two additional petroleum production licenses in 1970 in the North Sea covering 385,000 acres. Our interest is 22.2 per cent. Our Company alone also received production licenses totaling 303,000 acres in the Irish Sea. The British Gas Council has an option to participate up to 50 per cent.

Latin America

Argentina. Crude oil that we produce under contract for the Argentine oil agency reached a record 43,125 barrels daily, up from 39,457 in 1969. We began seismic work on the 525,000-acre Chihuido contract area and we acquired one-third interest in a 1.7-million-acre block near the Strait of Magellan.

Ecuador. We received a 988,000-acre concession in the Oriente region touching the eastern boundary of the 988,000-acre Curaray concession, acquired in 1969. Seismic work is being conducted.

Trinidad. Twelve wells were completed in 1970 in our 100 per cent interest 1.5-million-acre offshore Trinidad concession east of the island. Of three exploratory wells drilled, two were gas discoveries; the other was unsuccessful. Four of the nine delineation wells drilled to extend previous discoveries in the Offshore Point Radix (OPR) and Southeast Galeota areas were productive. Further development and

exploratory drilling is continuing.

To produce the low-sulfur, high-quality oil we have tested in the OPR area, we began field development drilling from a new 12-well permanent platform erected about 25 miles east of Trinidad. Production is scheduled to begin in early 1972. Present plans are for a rate of about 50,000 barrels a day.

Venezuela. Production of heavy asphaltic oil from our wholly owned Jobo field did not begin until June, but its daily average for 1970 was 11,662 barrels from 28 wells. We plan to increase production to 40,000 barrels of oil a day in 1971. In Lake Maracaibo, production averaged 2,423 net barrels of oil a day.

Manufacturing and Marketing

Our overseas branded retail outlets increased to 2,406, and sales of refined products increased 19 per cent to an average 110,758 barrels a day.

Asia

India. The Madras refinery, in which we have 13 per cent interest, processed Darius (Iran) crude at an average rate of 41,930 barrels daily.

Iran. Our half-interest Kharg Island plant averaged daily production of 472 tons of sulfur, 2,750 barrels of liquefied petroleum gas, and 1,015 barrels of natural gas liquids. A new pipeline is being installed to supply additional plant feed gas which will be available late in 1971.



One of our Italian Autostrade service stations at Civitavecchia, near Rome.

Australia

The Brisbane refinery processed 20,885 barrels a day, up about 2 per cent from 1969. Crude-running capacity was expanded to 27,000 barrels a stream day. We now hold 4.4 per cent of the Australian market for petroleum products. At year end, we had 462 retail outlets in operation, up 13.

Europe

Italy. Amoco branded retail outlets increased to 1,201. Product sales rose 11 per cent, and the Cremona refinery processed a record average 61,323 barrels of crude oil daily, representing 3.9 per cent of the Italian market. We completed a pentane isomerization unit that improves the value of our gasoline, and we are planning to expand refinery capacity to 90,000 barrels a day.

United Kingdom. Sales volume increased 65 per cent to average 16,400 barrels of products a day. Branded retail outlets increased to 360. Our proposal to build an 80,000-barrel-a-day refinery at Milford Haven, South Wales,

received the necessary governmental approvals.

West Germany. The company name was changed to Amoco Deutschland GmbH from Rheinische Mineraloel GmbH. Retail outlets increased to 383. Product sales rose to 14,300 barrels a day.

Chemicals and Fertilizers

Overseas sales of chemicals increased 120 per cent to more than \$50 million.

When completed in 1971, a second isophthalic acid (IPA) plant, being built by A. G. International Chemical Company at Mizushima, Japan, will bring our gross IPA capacity in Japan to 75 million pounds a year. We have 50 per cent interest. During the year, combined capacity of the Geel, Belgium, dimethyl terephthalate and purified terephthalic acid plants was raised 26 per cent, to 265 million pounds a year.

Also scheduled to be in production in 1971 is a polypropylene carpet-backing plant, with initial yearly capacity of 8.6

million square yards, at Liverpool, a suburb of Sydney, Australia.

In India, delay in equipment deliveries and strikes postponed the start-up of the Madras Fertilizers Limited process facilities until later in 1971.

Transportation

Two 78,000-deadweight-ton tankers, the Amoco Savannah and Amoco Texas City, were added to our proprietary foreign flag fleet. The six-vessel fleet was supplemented with chartered tankers. We transported about 47 million barrels of overseas crude oil and petroleum products. We placed orders in Spain for two more 230,000-deadweight-ton tankers, bringing the total on order to four, all scheduled for delivery by 1975.

Our foreign tanker tonnage continued to expand, reaching an all-time high of 1,402,000 deadweight tons in 1970. Our own vessels accounted for 456,000 tons, and chartered vessels 946,000 tons.

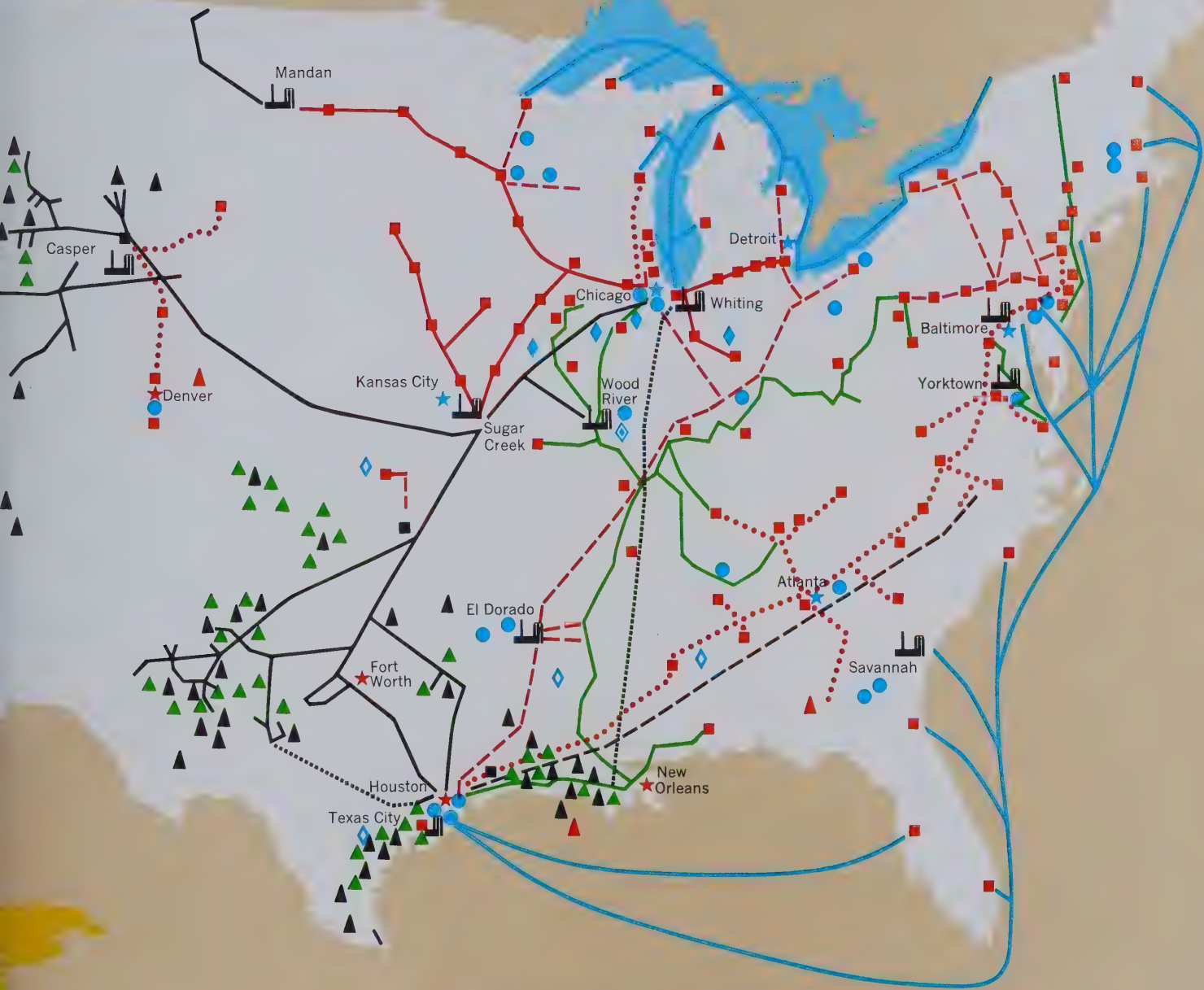
UNITED STATES OPERATIONS

-  Exploration
-  Major areas in which company has production of crude oil and/or natural gas
-  Divisional Exploration and Production Offices
-  Crude Oil Tank Farms
-  Crude Oil Pipelines, Wholly Owned
-  Crude Oil Pipelines, Partly Owned
-  Operated Natural Gasoline or Cycling Plants
-  Refineries
-  Refined Products Terminals
-  Products Pipelines, Wholly Owned
-  Products Pipelines, Partly Owned
-  Products Pipelines, Used but Not Owned
-  Tanker Routes
-  Barge Routes
-  LP-Gas Pipeline, Partly Owned
-  Chemical Plants
-  LP-Gas Terminals
-  Ammonia Terminals
-  Regional Sales Offices

FOREIGN OPERATIONS

-  Exploration
-  Production
-  Refineries
-  Chemical Plants
-  Operated Natural Gasoline or Cycling Plants
-  Foreign Crude Oil Ocean Routes
-  Sulfur Shipping Routes
-  Marketing





Computers Aid Research in Oil Exploration; Scientists Make Progress on Control of Auto Emissions

Expenditures for our technical research and development totaled about \$28 million. We obtained 305 new patents and applied for 353 others.

Exploration and Production.

Our Tulsa research scientists developed several computer applications in 1970 to improve techniques of finding and recovering crude oil and natural gas.

Mathematical simulation of petroleum reservoirs helps us select the best ways to recover hydrocarbons. These programs are being applied worldwide to our major reservoir studies.

Computer-based optimized drilling programs developed for our own use are also being provided to other operators for a fee.

We continued to develop programs for our digital data processing system to improve the display interpretation of geophysical field data. Three advanced digital recording systems were placed in the field to aid our exploration. We also developed electronic control circuitry to improve vibratory energy sources used in seismic operations.

New techniques in organic geochemistry are being used to evaluate the potential of untested drilling prospects.

Methods of recovering oil beyond that possible with waterflooding are ready for field testing. Some will use substantial quantities of chemicals that we will market.

Off Canada and Alaska in the Beaufort Sea, we participated in ice studies to improve our operations

in Arctic waters. We created an Arctic Operations Committee to coordinate research. We initiated a similar study in the Gulf of Mexico to develop more reliable data on waves and winds for platform design and operations.

Process and Product Development.

Technology developed to manufacture our Amoco Super Premium lead-free gasoline was expanded and directed toward making our new Lead-Free Amoco gasoline and testing its performance in 1971 prototype engines.

We have formulated several catalysts to transform into harmless substances the nitrogen oxides in exhausts of automobiles using lead-free gasoline. The best catalysts appear chemically stable enough for catalytic converters. We are developing the best mechanical forms.

We recently announced a process to desulfurize residual fuel used in power plants and other industry.

An oil-spill recovery ship, using our foam-drum skimming device to recover up to 300 tons of oil an hour, was built by one of our three licensees. We also developed a skimmer to recover oil treated initially with absorbents.

We adapted a mixed-media filter to treat effluent water and plan to install it at several refineries.

Our motor oils were improved for high-temperature performance. A new initial-fill engine oil and new hydraulic transmission fluids were introduced. We are field-testing

new water-based metal-working lubricants. A new line of industrial gear oils has also been developed.

We began using our proprietary additive to improve flow properties of lighter residual fuels.

In agriculture, we introduced oil-fired crop dryers, made practical by a clean-burning oil burner we developed. Our zinc micro-nutrient additive for liquid fertilizers increased yields of corn, even on soils regarded as sufficient in zinc. We plan to add it to our products.

A new laboratory micro-cracking unit allows rapid evaluation of the new generation of zeolite catalysts used in catalytic cracking, helping us to maximize efficiency in this major gasoline-manufacturing process.

Two large Ultraforming units licensed to others were brought on stream, raising total installed licensed Ultraformer capacity to more than 200,000 barrels a day.

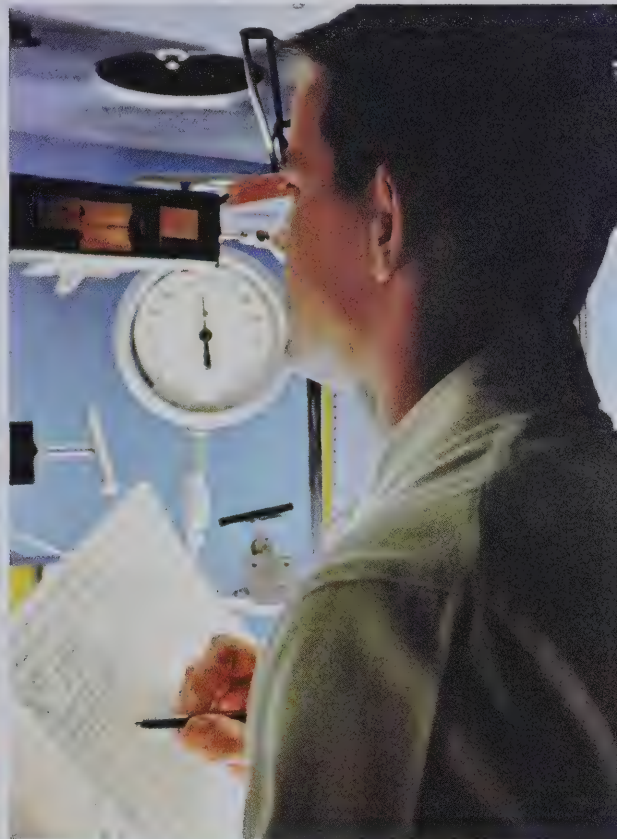
Our simulated-traffic machine for testing highway pavements was made available to the State of Minnesota, under contract.

Chemical research formerly conducted at Chicago, Whiting, and Marcus Hook, Pennsylvania, was established in our new center at Naperville, Illinois, where three new laboratory buildings were opened. The first phase of Naperville construction, encompassing five major buildings, was essentially complete at year end, with 338 engineers and scientists and 337 support personnel at work.

Portable ultrasonic inspection device was developed and licensed by our scientists.



Research assistant conducts gas composition test in preparation for miscible-flooding recovery of oil.



Chemical research building, cafeteria, and fire-water pond at Naperville.

New Facilities at Plants, Refineries Aid Cleanup of Air and Water

Air and Water Conservation.

In addition to introducing regular-grade lead-free gasoline generally, and expanding sulfur-recovery facilities at refineries, we were active in many other aspects of air and water conservation.

At Texas City, we began building facilities for intake water clarification and improved sludge treatment. At Yorktown, Virginia, we expanded secondary effluent water treating facilities, and plan to install a tertiary treatment process we developed. Whiting is building a fluidized-bed incinerator to dispose of sludges and caustics.

New waste treatment facilities were added at Decatur, Alabama, and at Joliet, Illinois.

At operating locations throughout the Company, we implemented plans to prevent and combat oil and chemical spills. This included the stockpiling of emergency equipment, improving the drainage and vapor control at terminals and bulk plants, and entering cleanup cooperative agreements with other companies for many operating facilities.

We planned further control of sulfur dioxide and hydrogen sulfide gas emissions at our sulfur plants in producing fields through incinerators, stacks, and other equipment, and improved sulfur recovery using our own new process, being tested at our Edgewood plant in East Texas.

Wage, Benefit Costs To Rise \$50 Million

People. Late in 1970, we negotiated wage agreements covering the majority of our union-represented domestic employees. The contracts provide wage increases of 8½ per cent in 1971 and 7½ per cent in 1972, plus improvements in medical insurance and retirement plans. These settlements, comparable with those of competitors, will increase our wage and benefit costs by \$50 million in 1971. Generally our labor relations were excellent in 1970.

To help improve the environment needed for continued growth of our society and economy, we employed increasing numbers of minority group members.

In cooperation with local organizations, we have established service station training programs that draw many unemployed members of minority groups into successful careers with our dealers. We now have more than 600 black dealers, including some of our most successful lessees.

In 1970 we established Amoco Venture Company, a minority enterprise small business investment company, to help bring minorities into the mainstream of the economy. Meanwhile, we increased our purchases of goods and services from minority entrepreneurs.

Companywide affirmative action programs were instituted to improve our long-established recruitment and training of able minority group employees for advancement. Some employees whom we trained from the so-called "hard-core" unemployed have earned promotions.

Production unit in Louisiana bayou practices with boom to control oil spills.



Tertiary treatment of effluent water completed first year of operation at Whiting.



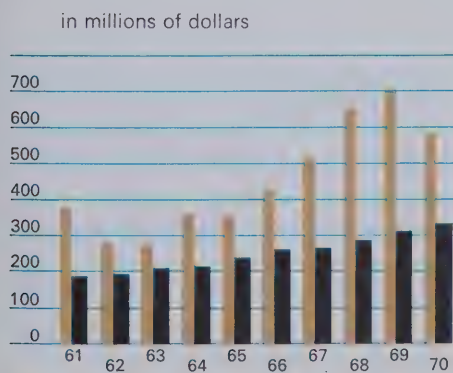
Net Off 2%; Earnings Per Share Rise Slightly; Revenues at New High, Reflecting Record Operations

Earnings for 1970 were \$314,019,000, a decrease of 2 per cent from \$321,033,000 for 1969. Earnings per share were a record \$4.55 on 69,013,917 average shares outstanding, compared with \$4.54 a share in 1969 on 70,764,944 average shares outstanding.

We paid four quarterly dividends of 57½ cents a share in 1970, totaling \$2.30 a share, the same as in 1969. Dividend payments totaled \$159,015,000 in 1970.

Revenues, Costs, Expenses, and Taxes. Revenues totaled a record \$4,623,229,000 in 1970, up 6.7 per cent. This gain resulted from continued expansion of over-all Company operations, increases in total sales volumes, and a slight improvement in refined product prices.

Costs, expenses, and taxes increased 7.4 per cent to \$4,309,210,000 in 1970.



● Capital Expenditures
● Depreciation, Depletion, etc.

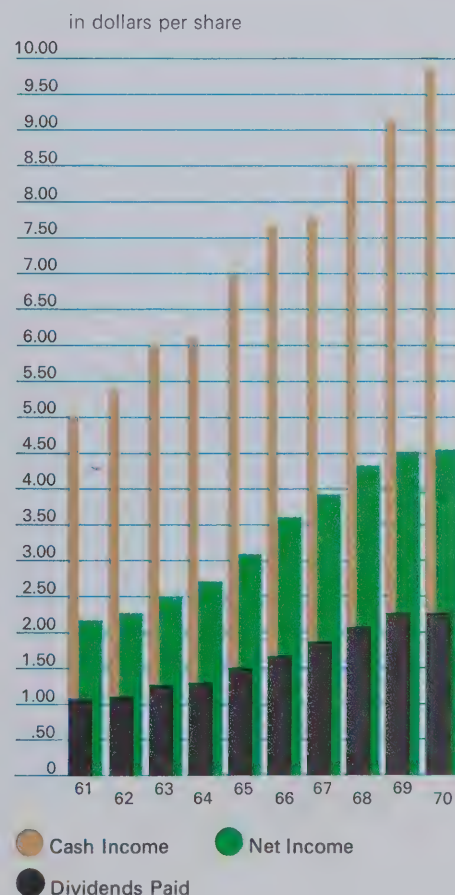
Contributing factors included the higher level of operations, continued inflation of costs for goods and services, increased employment costs, and higher taxes, resulting from new legislation.

Taxes totaled \$1,064 million in 1970, up 9.3 per cent. Excise taxes collected on the sale of products to customers amounted to \$817 million. Federal and other taxes on income totaled \$123 million in 1970. The effect of the 1969 Revenue Act alone was to decrease 1970 net income by some \$24 million.

Capital and Exploration Expenditures. Capital and exploration expenditures totaled \$713 million, compared with \$857 million in 1969, a decrease of 17 per cent. Exploration and production expenditures represented 57 per cent of the 1970 total. Capital expenditures amounted to \$580 million. Exploration expenditures charged to current income totaled \$133 million, a decrease of \$24 million from 1969.

Working Capital. At the end of 1970, working capital totaled \$484 million, a decrease of \$60 million. Current assets were 1.53 times current liabilities.

Cash and marketable securities included in current assets totaled \$222 million at year end, a decrease of \$52 million. Notes and accounts receivable increased \$39 million to a total of \$695 million, reflecting the rise in sales volumes and continued expansion of goods and



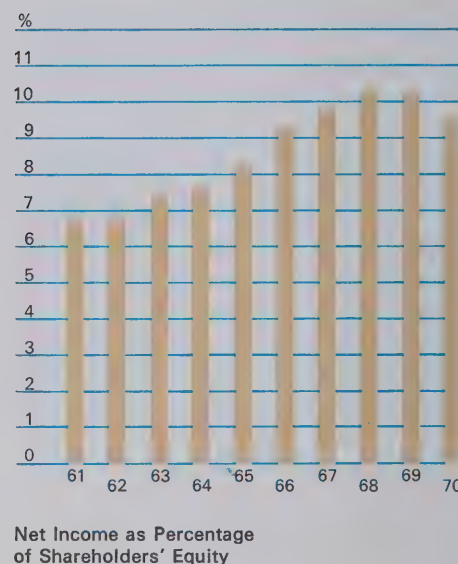
services offered to our credit card customers.

Crude oil and product inventories rose \$52 million to \$382 million. These are stated at cost, mainly on the last-in, first-out method (LIFO), which is substantially below replacement cost. Inventories of materials and supplies, stated at average cost or less, totaled \$65 million.

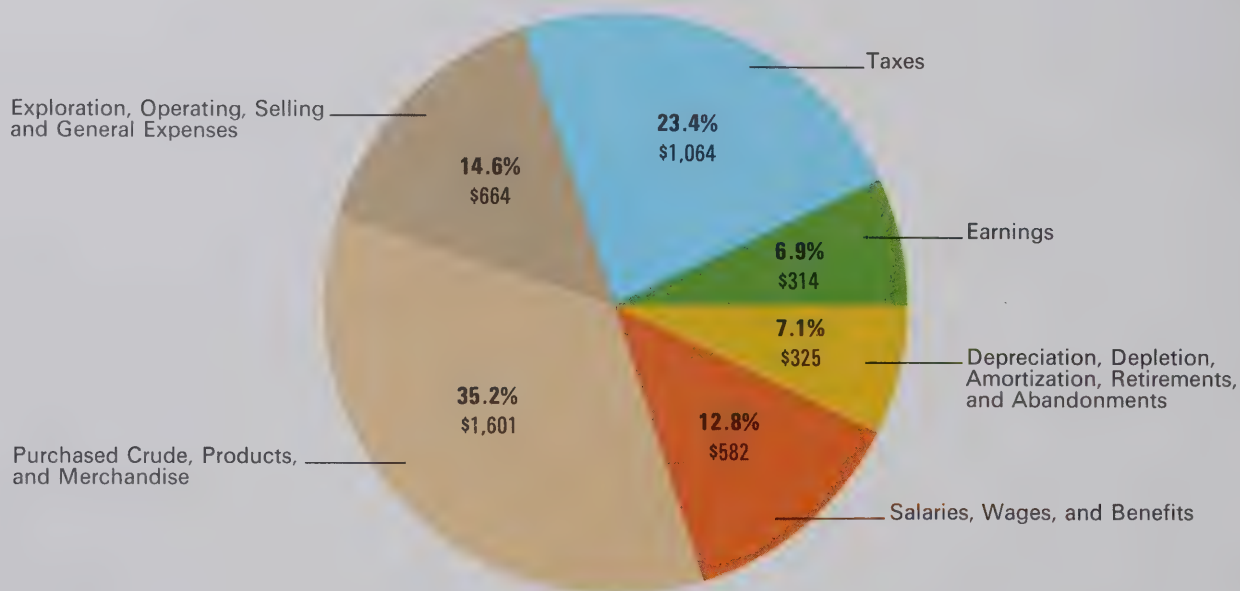
Accounts and notes payable

increased to \$723 million in 1970, up \$69 million, due to an increase in the issuance of short-term unsecured promissory notes to meet short-term corporate cash needs and higher operating levels.

Indebtedness. Long-term debt at year end was \$899 million, including installments of \$61 million due in 1971. Total long-term debt was about 17 per cent of total assets.



Use of the Revenue Dollar (all income from all sources—in millions of dollars)



Financial Statements Standard Oil Company (Indiana) and Subsidiaries

For the Years 1970 and 1969.

Consolidated Statement of Income

	1970	1969*
Revenues		
Sales and other operating revenues (including excise taxes).....	\$4,550,089,000	\$4,244,096,000
Dividends, interest, and other income.....	73,140,000	90,244,000
Total revenues.....	4,623,229,000	4,334,340,000
Costs, Expenses, and Taxes		
Purchased crude oil, petroleum products, merchandise, and operating expenses..	2,116,408,000	1,945,928,000
Exploration expenses, including dry hole costs.....	133,517,000	157,523,000
Selling and administrative expenses.....	590,905,000	558,373,000
Taxes	1,063,753,000	973,207,000
Depreciation, depletion, amortization, and retirements and abandonments....	325,242,000	305,516,000
Interest expense.....	73,855,000	65,508,000
Income applicable to minority interest.....	5,530,000	7,252,000
Total costs, expenses, and taxes.....	4,309,210,000	4,013,307,000
Net Income	\$ 314,019,000	\$ 321,033,000
Net Income Per Share	\$4.55	\$4.54

Consolidated Statement of Shareholders' Equity

	Par Value of Capital Stock	Capital in Excess of Par Value	Earnings Retained and Invested in the Business	Treasury Shares at Cost	Total
Balance at December 31, 1968					
As previously reported.....	\$913,418,000	\$73,112,000	\$2,172,078,000	\$ (84,420,000)	\$3,074,188,000
Consolidation of Amoco Argentina Oil Company...			12,615,000		12,615,000
As restated	913,418,000	73,112,000	2,184,693,000	(84,420,000)	3,086,803,000
Net income			321,033,000		321,033,000
Cash dividends at \$2.30 a share...			(163,254,000)		(163,254,000)
Acquisitions and disposals of treasury shares (net).....				(19,090,000)	(19,090,000)
Balance at December 31, 1969...	913,418,000	73,112,000	2,342,472,000	(103,510,000)	3,225,492,000
Net income			314,019,000		314,019,000
Cash dividends at \$2.30 a share...			(159,015,000)		(159,015,000)
Acquisitions and disposals of treasury shares (net).....				(14,500,000)	(14,500,000)
Balance at December 31, 1970...	\$913,418,000	\$73,112,000	\$2,497,476,000	\$(118,010,000)	\$3,365,996,000

The Notes on pages 26 and 27 are an integral part of these statements.

* Restated — (Refer to Notes).

Consolidated Balance Sheet Standard Oil Company (Indiana) and Subsidiaries

December 31, 1970 and 1969

Assets		1970	1969*
Current Assets	Cash	\$ 102,651,000	\$ 106,217,000
	U.S. Government and other marketable securities — at cost, which approximates market.	119,825,000	167,899,000
	Accounts and notes receivable (less reserves of \$32,743,000 at December 31, 1970, and \$26,221,000 at December 31, 1969)	695,035,000	656,149,000
	Inventories —		
	Crude oil and products — at cost (mainly LIFO), below market.	382,402,000	330,681,000
	Materials and supplies — at or below cost.	64,691,000	61,006,000
	Prepaid expenses and income taxes.	38,912,000	45,411,000
		<u>1,403,516,000</u>	<u>1,367,363,000</u>
Investments and Sundry Assets	Investments held for operating purposes.	73,839,000	67,042,000
	Long-term receivables and sundry assets (including, at December 31, 1970 and 1969, respectively, installment notes receivable of \$58,037,000 and \$66,328,000 from sale, in 1960, of certain gas and oil properties, less deferred income of \$52,546,000 and \$60,052,000; and less reserves of \$7,369,000 and \$14,848,000)	157,427,000	199,808,000
		<u>231,266,000</u>	<u>266,850,000</u>
Properties	— at cost, less depreciation, depletion, and amortization reserves of \$2,914,484,000 at December 31, 1970, and \$2,769,764,000 at December 31, 1969.	3,762,689,000	3,535,427,000
		<u>\$5,397,471,000</u>	<u>\$5,169,640,000</u>
Liabilities and Shareholders' Equity		1970	1969*
Liabilities Payable Within One Year	Current installments of long-term debt.	\$ 60,672,000	\$ 30,414,000
	Notes payable	200,384,000	161,306,000
	Accounts payable and accrued liabilities.	522,650,000	492,335,000
	Taxes payable (including income taxes)	135,512,000	139,031,000
		<u>919,218,000</u>	<u>823,086,000</u>
Long-Term Debt		838,664,000	890,283,000
Deferred Income Taxes		229,905,000	189,300,000
Minority Interest in Subsidiary Companies		43,688,000	41,479,000
Shareholders' Equity	Capital stock.	913,418,000	913,418,000
	Capital in excess of par value.	73,112,000	73,112,000
	Earnings retained and invested in the business.	2,497,476,000	2,342,472,000
		<u>3,484,006,000</u>	<u>3,329,002,000</u>
	Less — Capital stock held in treasury — at cost.	118,010,000	103,510,000
	Total shareholders' equity.	<u>3,365,996,000</u>	<u>3,225,492,000</u>
		<u>\$5,397,471,000</u>	<u>\$5,169,640,000</u>

The statements of Investment in Properties and Long-Term Debt on page 25 and the Notes on pages 26 and 27 are an integral part of these statements.

* Restated — (Refer to Notes).

Source and Application of Funds

1970

1969*

Source of Funds	Net income	\$314,019,000	\$321,033,000
	Depreciation, depletion, amortization, and retirements and abandonments	325,242,000	305,516,000
	Deferred income taxes	42,201,000	19,859,000
		681,462,000	646,408,000
	New borrowings	17,285,000	119,340,000
	Dispositions of property	27,252,000	72,305,000
	Total	\$725,999,000	\$838,053,000
Application of Funds	Capital expenditures	\$579,762,000	\$699,666,000
	Dividends paid	159,015,000	163,254,000
	Repayments on borrowings	68,904,000	47,215,000
	Increase (decrease) in long-term receivables and sundry assets	(42,381,000)	19,958,000
	Increase in treasury shares held	14,500,000	19,090,000
	Miscellaneous	6,178,000	25,201,000
	Decrease in working capital	(59,979,000)	(136,331,000)
	Total	\$725,999,000	\$838,053,000

Long-Term Debt

1970

1969

Standard Oil Company (Indiana) —

6% Debentures due 1979 to 1998	\$200,000,000	\$200,000,000
6% Debentures due 1972 to 1991	168,875,000	175,000,000
4½% Debentures due 1972 to 1983	142,670,000	151,453,000
3% Debentures due 1972 to 1979	19,400,000	20,114,000
2.90% to 3½% Promissory Notes due 1972 to 1979	42,556,000	47,416,000
Amoco Chemicals Corporation 4.571% to 6% Promissory Notes due 1972 to 1981	52,057,000	80,455,000
Amoco Pipe Line Company 3.20% Debentures due 1982, exclusive of \$20,400,000 principal amount repurchased as of December 31, 1970	22,000,000	25,022,000
Amoco International Finance Corporation 5½% and 6¾% Guaranteed Bonds and 5½% Convertible Guaranteed Debentures due 1972 to 1984	83,516,000	84,516,000
Amoco Oil Holdings S.A. 5¾% Guaranteed Bonds due 1972 to 1985	20,590,000	22,060,000
N.V. Amoco Chemicals Belgium S.A. 7¼% Promissory Notes due 1972 to 1979 ..	24,000,000	27,000,000
Other indebtedness	63,000,000	57,247,000
	\$838,664,000	\$890,283,000

Investment in Properties

(Thousands of Dollars)

1970 Capital Expenditures

Investment December 31, 1970

Investment December 31, 1969 *

	Amount	%	Gross	Net	%	Net	%
Production	\$274,760	47%	\$3,379,955	\$1,821,277	48%	\$1,741,376	49%
Manufacturing	57,318	10	1,025,195	437,742	12	415,605	12
Chemicals	79,169	14	599,286	471,348	13	422,153	12
Transportation	36,196	6	624,739	282,616	8	271,196	8
Marketing	125,295	22	946,628	692,327	18	627,049	18
Other	7,024	1	101,370	57,379	1	58,048	1
Total	\$579,762	100%	\$6,677,173	\$3,762,689	100%	\$3,535,427	100%

* Restated — (Refer to Notes).

Notes to Financial Statements

Principles of Consolidation. The accounts of all domestic and foreign subsidiaries in which the Company directly or indirectly owns more than 50 per cent of the voting stock are included in the consolidated financial statements except for Imperial Casualty and Indemnity Company and Amoco Credit Corporation, which are accounted for on an equity basis. Amoco Argentina Oil Company, a wholly-owned subsidiary, which had been excluded from the consolidation since 1963, was consolidated as of January 1, 1970 and prior years' data have been restated with no effect on net income.

In June, 1969, Amoco Credit Corporation was organized as a wholly-owned financial subsidiary with a capitalization of \$24 million. The investment in Amoco Credit at December 31, 1970 and 1969 included with investments held for operating purposes on the Consolidated Balance Sheet, was \$29,749,000 and \$24,654,000, respectively. At December 31, 1970, Amoco Credit had \$143,070,000 of receivables (net) and short-term debt amounting to \$115,000,000; at December 31, 1969, the comparable amounts were \$118,300,000 and \$94,950,000, respectively. The net income of Amoco Credit was \$2,095,000 and \$654,000 for 1970 and 1969, respectively.

Consolidated year-end net assets and net income for 1970 and 1969 were:

	Net Assets		Net Income	
	1970	1969	1970	1969
	(Millions of Dollars)			
United States . . .	\$2,500.5	\$2,448.8	\$253.9	\$273.8
Canada	323.2	292.1	15.5	14.1
Overseas	542.3	484.6	44.6	33.1
Total	<u>\$3,366.0</u>	<u>\$3,225.5</u>	<u>\$314.0</u>	<u>\$321.0</u>

Depreciation, Depletion, and Amortization. In general, depreciation of plant and equipment is computed on a straight-line basis over the estimated economic life of the facilities. Depletion of producing properties and amortization of intangible drilling and development costs applicable to productive wells are computed on the unit-of-production method, based on estimated net recoverable oil and gas reserves. For income tax purposes, all intangible drilling and development costs are deducted when incurred. Non-producing property costs are capitalized and amortized over projected holding periods based upon past experience.

Capital Stock. Of an authorized 100,000,000 shares of \$12.50 par value common stock, 73,073,483 shares have been issued. There were 68,848,229 shares outstanding at December 31, 1970, compared with 69,159,672 shares outstanding at December 31, 1969. The decrease in shares outstanding resulted entirely from treasury stock transactions as summarized below:

	1970		1969	
	Shares (000's)	Amount (Millions)	Shares (000's)	Amount (Millions)
Treasury shares at January 1	3,913.8	\$103.5	2,217.7	\$ 84.4
Purchases	1,431.8	62.9	952.8	54.0
Received in exchange for Standard Oil Company (New Jersey) shares . .	—	—	1,653.0	13.9
Sales to trustee under employee savings plan . . .	(1,095.5)	(47.3)	(644.6)	(37.8)
Sales to optionees under incentive stock option plans	(8.3)	(.3)	(243.8)	(9.7)
Used in business acquisitions . . .	(16.5)	(.8)	(21.3)	(1.3)
	<u>311.5</u>	<u>14.5</u>	<u>1,696.1</u>	<u>19.1</u>
Treasury shares at December 31 . . .	<u>4,225.3</u>	<u>\$118.0</u>	<u>3,913.8</u>	<u>\$103.5</u>

Incentive Compensation Plan. In May, 1967, shareholders approved an incentive compensation plan for key executives. Bonuses, which may be in cash and/or Company stock, are awarded from a special reserve. The reserve provision in each bonus year may not exceed 3 per cent of the amount by which earnings (as defined in the plan) exceed 7 per cent of capital employed (as defined in the plan) during the year. Amounts charged against earnings and credited to a bonus reserve for the years 1970 and 1969 in anticipation of awards to be made in the following year were \$2,201,000 and \$2,961,000, respectively. Awards of \$2,739,000 and \$2,324,000 were made to 229 and 209 employees in the years 1970 and 1969, respectively.

Incentive Stock Option Plans. Under successive incentive stock option plans, begun May 7, 1953, key employees have been granted options to buy Company stock. The share price under options granted before May 2, 1963, is 95 per cent of the fair market value on the granting date, with options normally extending 10 years. The share price under options granted after

May 2, 1963, is 100 per cent of the fair market value on the date of grant; these options normally extend five years.

When options are exercised, the shares may be taken from authorized but unissued stock or may be reacquired shares. No options may be granted under current plans after May 1, 1973.

On January 1, 1970, options for 438,950 shares were outstanding under the plans, and 229,290 shares were available for future grants. Options for 8,330 shares were exercised during the year at prices ranging from \$19.25 to \$45.375 a share. Options for 17,900 shares expired or were canceled. New options were granted for 8,000 shares at prices ranging from \$38.50 to \$42.00 a share. At year end, executives held options for 420,720 shares, and 239,190 shares were available for future grants.

Retirement Plan. The Company and its subsidiaries have retirement plans available to substantially all employees, providing benefits under trustee plans and contracts with an insurance company. The Company's actuarially calculated cost for the years 1970 and 1969 of \$27 million and \$19 million, respectively, was funded and charged against earnings.

Contingent Liabilities and Commitments. In 1963, the Federal Power Commission asserted jurisdiction over the price at which certain producing properties were sold in 1960. In 1965, the U.S. Supreme Court ruled the sale was subject to FPC regulation.

The matter is pending before the FPC. In the Company's opinion, regulation of the sales price will not materially affect the Company's financial position.

On December 31, 1970, the Company had long-term

leases extending beyond one year covering various service stations, tankers, office buildings, and other facilities; substantially all expire within 15 years. Annual rentals payable under these leases, net of related rental income of \$27,661,000, are estimated at \$52,910,000.

The Company is contingently liable for \$85,895,000 as guarantor on outstanding loans of others. Also, under long-term agreements with some companies in which it holds stock interests, the Company has guaranteed specified revenues from product shipments. Under certain conditions, it is obligated to provide funds to maintain working capital at specified minimums. No loss is anticipated from these obligations.

At year end, the Company had substantial commitments to acquire or build facilities in the normal course of business.

Taxes. Taxes totaled \$1,063,753,000 for 1970 and \$973,207,000 for 1969. The principal taxes, including excise taxes on products sold, are shown below. Federal taxes on income were reduced by investment credits of \$4,942,000 in 1970 and \$11,787,000 in 1969.

(Thousands of Dollars)	1970	1969
Excise Taxes	\$ 817,262	\$748,519
Property Taxes	54,548	51,313
Production Taxes	34,909	32,060
Federal taxes on income		
Current	56,018	64,524
Deferred	42,201	19,859
State and foreign taxes on income.	24,502	22,991
Social security taxes, corporation taxes, import duties, etc.	34,313	33,941
Total Taxes	<u>\$1,063,753</u>	<u>\$973,207</u>

Report of Independent Accountants

Price Waterhouse & Co.

To the Board of Directors of
Standard Oil Company (Indiana)

In our opinion, the accompanying consolidated balance sheets, the related consolidated statements of income and shareholders' equity and the consolidated statement of source and application of funds present fairly the consolidated financial position of Standard Oil Company (Indiana) and its consolidated subsidiary companies at December 31, 1970 and December 31, 1969, the results of their operations and source and application of their funds for the two years, in conformity with generally accepted accounting principles consistently applied. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Chicago, Illinois
February 25, 1971

Price Waterhouse & Co.

Ten-Year Financial Summary† Standard Oil Company (Indiana) and Subsidiaries

Dollar amounts in millions except where noted

Sales and Other Operating Revenues (including excise taxes)

Year	Refined Products	Crude Oil	Natural Gas	Chemicals and Fertilizers	Tires, Batteries, Accessories, and Miscellaneous	Other Sales and Operating Revenues	Total Operating Revenues
1970	\$3,045	\$618	\$217	\$392	\$127	\$151	\$4,550
1969	2,857	548	204	383	124	128	4,244
1968	2,693	500	160	352	120	117	3,942
1967	2,465	494	153	232	109	106	3,559
1966	2,405	417	136	178	107	86	3,329
1965	2,205	397	130	141	97	79	3,049
1964	2,038	412	125	111	90	72	2,848
1963	1,995	405	110	80	79	68	2,737
1962	1,950	375	97	66	74	65	2,627
1961	1,824	368	87	62	68	61	2,470

Financial Condition at Year End

Year	Total Assets	Working Capital	Current Ratio	Liabilities Payable in Later Years	Borrowed and Invested Capital	Net Worth	Book Value Per Share (in dollars) **
1970	\$5,397	\$484	1.53 to 1	\$839	\$4,309	\$3,366	\$48.89
1969	5,170	544	1.66 to 1	890	4,188	3,225	46.64
1968	4,755	681	2.06 to 1	818	3,964	3,087	43.56
1967	4,204	641	2.17 to 1	512	3,502	2,937	41.41
1966	3,985	720	2.48 to 1	506	3,349	2,795	39.57
1965	3,704	569	2.33 to 1	350	3,112	2,715	38.35
1964	3,459	530	2.62 to 1	340	3,011	2,618	36.90
1963	3,334	619	2.95 to 1	366	2,911	2,534	35.70
1962	3,163	534	2.98 to 1	384	2,820	2,428	34.21
1961	3,058	501	2.90 to 1	420	2,751	2,321	32.98

Exploration and Development Costs

Year	New and Renewed Leases	Wells and Production Facilities	Dry Holes	Lease Rentals	Geological, Geophysical, and Other Exploration Expenses	Total Cash Expenditures for Exploration and Development
1970	\$ 61	\$214	\$64	\$14	\$55	\$408
1969	178	218	85	15	57	553
1968	85	206	80	12	58	441
1967	45	196	67	11	57	376
1966	55	182	75	11	60	383
1965	63	152	53	13	54	335
1964	59	176	61	14	53	363
1963	46	132	46	13	45	282
1962	47	129	45	14	40	275
1961	55	175	42	13	37	322

	Net Income		Dividends*		Taxes		
Total Revenues	Total	Per Share (in dollars) **	Total Value	Per Share (in dollars) **	Excise Taxes	Total Taxes Including Excise Taxes	Year
\$4,623	\$314	\$4.55	\$159	\$2.300	\$817	\$1,064	1970
4,334	321	4.54	163	2.300	749	973	1969
4,003	309	4.37	149	2.100	704	906	1968
3,613	281	3.97	135	1.900	618	813	1967
3,377	258	3.66	120	1.700	598	769	1966
3,089	219	3.10	110	1.550	553	724	1965
2,884	195	2.75	94	1.325	505	627	1964
2,776	183	2.58	90	1.266	482	626	1963
2,656	162	2.29	81	1.149	479	583	1962
2,502	154	2.19	79	1.124	437	532	1961

Cash Income (earnings plus depreciation, depletion, etc.)	Capital Expenditures	Exploration Expenditures Including Dry Holes	Shareholders at Year End		Employees		Year
			Number (in thousands)	Shares Outstanding (in thousands) **	Number at Year End	Wages and Benefits	
\$681	\$580	\$133	179	68,848	47,551	\$582	1970
646	700	157	173	69,160	48,373	535	1969
604	654	150	173	70,856	47,974	497	1968
553	517	135	172	70,906	45,528	445	1967
543	424	146	173	70,647	43,111	408	1966
494	358	120	171	70,795	41,283	383	1965
434	360	128	161	70,927	40,854	367	1964
427	274	104	150	70,989	38,501	354	1963
383	278	99	154	70,971	39,189	358	1962
356	378	92	154	70,358	41,304	355	1961

† Figures subsequent to 1962 are restated to include the consolidation of Amoco Argentina Oil Company.

* Dividends prior to 1964 include the market value on date of distribution of the Standard Oil Company (New Jersey) stock distributed as a special dividend.

** Adjusted for the two-for-one stock split in September, 1964.

Ten-Year Operating Summary† Standard Oil Company (Indiana) and Subsidiaries

Exploration and Development

Year	Net Producing and Prospective Acreage at Year End (in thousands)				Net Wells Drilled		
	Producing Leases		Undeveloped Leases		Exploratory		
	United States	Canada	United States	Canada	Oil	Gas	Dry
1970	2,246	717	12,625	5,307	20	17	168
1969	2,238	704	13,393	4,944	25	33	290
1968	2,447	614	11,696	3,967	49	51	323
1967	2,415	552	9,522	3,111	34	32	221
1966	2,387	520	8,486	3,108	35	43	192
1965	2,298	479	9,539	3,197	33	33	186
1964	2,259	412	11,758	3,591	42	43	253
1963	2,092	262	11,234	3,174	40	28	245
1962	1,998	261	13,758	3,428	34	36	150
1961	1,900	191	15,516	2,764	26	51	131

Production

Net Production of Crude Oil and Natural Gas Liquids (thousands of barrels per day)							
Year	Texas	Louisiana	Wyoming	Oklahoma	New Mexico	Other U.S.	Total U.S.
1970	252	71	58	27	26	32	466
1969	225	70	62	26	27	42	452
1968	224	64	60	25	27	47	447
1967	218	60	59	24	26	43	430
1966	208	55	57	23	23	39	405
1965	202	52	58	19	19	40	390
1964	191	48	54	17	16	39	365
1963	180	45	44	14	15	37	335
1962	166	38	45	13	15	38	315
1961	155	33	47	13	18	35	301

Year	Net Proved Reserves		Manufacturing		Marketing		
	U.S. and Canada at Year End		Refinery Input (thousands of barrels per day)	Refinery Crude Capacity (year end)	Refined Products Sold (thousands of barrels per day)		
	Crude Oil and Natural Gas Liquids (thousands of barrels)	Natural Gas (billions of cubic feet)			Gasoline (including natural gasoline)	Heating Oils and Diesel Fuels	Residual Fuel Oil
1970	3,237,600	19,029	977	1,125	491	276	110
1969	3,300,960	20,379	971	1,056	482	270	93
1968	3,271,064	20,464	925	1,045	459	252	86
1967	3,231,789	19,996	862	995	430	233	79
1966	3,159,857	19,839	829	895	435	222	81
1965	3,043,794	19,196	777	807	400	210	85
1964	2,964,760	18,580	734	774	384	198	74
1963	2,743,664	17,175	720	773	364	201	75
1962	2,617,525	16,653	696	755	361	199	70
1961	2,546,368	16,456	660	754	333	178	67

† Figures subsequent to 1962 are restated to include the consolidation of Amoco Argentina Oil Company.

						Net Wells Owned		
Development			Total	Gross Wells Drilled	Non-Company Wells to Which Contributions Were Made	Oil (year end)	Gas (year end)	Year
Oil	Gas	Dry						
712	88	114	1,119	1,869	742	15,388	3,722	1970
493	110	124	1,075	1,664	625	15,316	3,729	1969
387	101	143	1,054	1,653	506	16,847	3,963	1968
411	110	131	939	1,487	456	16,913	3,900	1967
475	181	181	1,107	1,725	551	16,747	3,757	1966
727	184	163	1,326	1,912	510	16,476	3,545	1965
699	170	132	1,339	1,892	471	15,923	3,341	1964
633	121	144	1,211	1,655	448	14,206	2,987	1963
737	141	141	1,239	1,642	622	13,532	2,824	1962
502	196	111	1,017	1,421	488	12,943	2,631	1961

Canada	Egypt	Iran	Argentina	Other Foreign	Total	Natural Gas (millions of cubic feet per day)	Natural Gas Sold (millions of cubic feet per day)	Year
58	107	46	43	24	744	3,510	3,454	1970
48	86	52	39	7	684	3,313	3,267	1969
44	59	51	35	7	643	2,833	2,727	1968
41	16	50	29	11	577	2,738	2,622	1967
38	—	32	24	16	515	2,533	2,427	1966
34	—	23	28	9	484	2,374	2,245	1965
30	—	2	31	7	435	2,186	2,109	1964
27	—	—	33	8	403	1,966	1,920	1963
26	—	—	38	3	382	1,834	1,807	1962
19	—	—	36	2	358	1,617	1,642	1961

						Transportation		
Other Products Total		Gasoline Retail Outlets Served (year end)		Crude Oil, NGL, etc., Purchased	Crude Oil Sold	Pipelines Owned, Miles (year end)	Pipeline Traffic (million barrel miles)	Year
		Company Owned or Leased	Other					
				(thousands of barrels per day)				
197	1,074	21,200	10,300	1,026	663	13,965	199,714	1970
190	1,035	21,600	10,400	934	560	14,303	210,155	1969
180	977	21,700	9,400	885	528	16,590	208,325	1968
160	902	21,800	9,300	838	522	16,788	190,425	1967
157	895	22,500	9,000	809	424	16,591	190,272	1966
145	840	23,100	8,900	757	396	16,645	178,587	1965
136	792	23,900	8,400	769	383	16,978	170,312	1964
130	770	25,100	7,900	764	379	16,844	170,976	1963
120	750	26,900	7,200	728	372	16,822	168,215	1962
109	687	27,900	7,600	706	350	17,543	170,957	1961

Company Honors Memory of Homer J. Livingston
and Jacob Blaustein, Who Contributed
To Corporate Progress for Many Years as Members
Of Standard Oil's Board of Directors



Homer J. Livingston served Standard Oil Company (Indiana) with distinction as a director for 14 years. For most of that period he was chairman of the board of The First National Bank of Chicago. He retired as chief executive of the bank in 1969, but continued as chairman of its Executive Committee and as a director. His broad grasp of financial, economic, and human relations factors in business, his purposeful dedication, his friendly sense of cooperation, his integrity, calm and wise counsel, and strength and courage under stress gained for him a position of high honor and respect. Mr. Livingston died May 9, 1970.



Jacob Blaustein provided dedicated, effective service to Standard Oil Company (Indiana) as a director for more than 16 years. In 1910, he and his late father founded American Oil Company, later acquired and expanded by Standard. For many years he served the original American Oil as an executive and director. With his long experience and sound judgment, he contributed to the progress of the oil industry for over half a century, served his country honorably on missions for five United States Presidents and in other capacities, and benefited humanity through his generous philanthropy. Mr. Blaustein died November 15, 1970.

Board of Directors Standard Oil Company (Indiana)

March 1, 1971

Directors

John E. Swearingen
Chairman of the Board

Robert C. Gunness
President

George V. Myers
Executive Vice President

Lawrence A. Kimpton
Assistant to the Chairman of the Board

Richard J. Farrell
Vice President and General Counsel

Herschel H. Cudd
President, Amoco Chemicals Corporation

L. Chester May
Vice President Finance

Logan T. Johnston
Chairman, Armco Steel Corporation

John S. Bugas
Retired Business Executive

F. Randolph Yost
President, Amoco Production Company

Joseph S. Wright
Chairman, Zenith Radio Corporation

Frank C. Osment
President, Amoco International Oil Company

George R. Cain
Chairman, Abbott Laboratories

Blaine J. Yarrington
President, American Oil Company

Herbert P. Patterson
President, Chase Manhattan Bank, N.A.

Officers

F. Cushing Smith
Vice President

Jack M. Tarpe
Vice President

William W. Spear
Vice President

John T. Snyder, Jr.
Treasurer

Richard M. McGowen
Comptroller

Robert D. Thompson
Secretary

Executive Changes

Herbert P. Patterson was elected to the Board of Directors of Standard Oil Company (Indiana) August 6, 1970. He has been president of The Chase Manhattan Bank, N.A., New York City, since 1969, and has been employed by that bank since 1949.

William W. Spear, senior attorney in charge of government relations in Washington, D.C., was elected a vice president of Standard Oil Company July 15.

Blaine J. Yarrington was elected a director of Standard Oil Company and president of American Oil Company effective March 1, 1970. He replaced L. William Moore, who retired after serving as president of American Oil since 1957, and a director of Standard since 1961.

General Office

910 South Michigan Avenue, Chicago, Illinois 60605

Transfer Agents

The Chase Manhattan Bank, N.A.
One Chase Manhattan Plaza, New York, New York 10015

The First National Bank of Chicago
One First National Plaza, Chicago, Illinois 60670

National Trust Company, Limited
21 King Street East, Toronto 1, Ontario, Canada

Registrars

First National City Bank
55 Wall Street, New York, New York 10015

Continental Illinois National Bank and Trust Company of Chicago
231 South LaSalle Street, Chicago, Illinois 60690

The Royal Trust Company
Royal Trust Tower, Toronto Dominion Center, Toronto 1, Ontario, Canada

Annual Meeting

The annual meeting of the Company's stockholders will be held on May 6, 1971, at the Whiting, Indiana, Community Center. A formal notice of the meeting, together with a proxy statement and proxy, will be sent to shareowners on or about April 6, 1971, at which time management will solicit proxies.

Foundation Report

Copies are available of the annual report of the Standard Oil (Indiana) Foundation, Inc., American Oil Foundation, and Pan American Petroleum Foundation, Inc. If you wish a copy, please write to the Executive Director, Standard Oil (Indiana) Foundation, P.O. Box 5910-A, Chicago, Illinois 60680.

Standard Oil Company (Indiana)

Post Office Box 5910-A

Chicago, Illinois 60680

Major Subsidiaries of Standard Oil Company (Indiana)

American Oil Company	Manufactures, transports, and sells petroleum products and fertilizers in the United States. In 15 Midwest states, it markets through its Standard Oil division. Its subsidiary, Amoco Pipeline Company, transports domestic crude oil to refineries of American and other companies.
Amoco Production Company	Finds and produces crude oil and natural gas in the United States; also buys, sells, and trades crude oil, natural gas, and natural gas liquids. A subsidiary, Amoco Gas Company, buys, transports, and resells natural gas.
Amoco International Oil Company	Finds, produces, and transports crude oil and natural gas, and manufactures and markets refined products outside North America.
Amoco Chemicals Corporation	Manufactures and markets chemical products from petroleum.
Amoco Canada Petroleum Company Ltd.	Finds and produces crude oil and natural gas in Canada; also buys, sells, and trades crude oil, natural gas and natural gas liquids.